

# **MICROWAVE SIGNAL EDGE DETECTOR CIRCUIT FOR IMPROVED CLOCK RECOVERY**

## **Abstract of the Disclosure**

5           A signal edge detector circuit is described for the detecting the signal transitions  
in a stream of microwave signals at a predetermined clock signal rate, particularly for  
OC-768 data streams. Selected transmission lines in the signal edge detector circuit  
reflect the signal transitions to terminate each signal transition at the output terminal of  
the detector circuit and to cancel out each other at a circuit node to prevent reflected  
10   transitions back to the input terminal of the detector circuit and to the transmission lines.  
With a squaring circuit at the output terminal of the detector circuit and a narrow-band  
filter at the output of the squaring circuit, the clock signals at the predetermined clock  
signal rate are recovered.